

## **REMARKS**

### **A. Background**

Claims 51-78 were pending in the application at the time of the Office Action with claims 61, 62, and 73 having been withdrawn from consideration. The Office Action rejected claims 51-60, 63-72, and 74-78 as being anticipated by or obvious over cited art. By this response Applicant has amended claims 51, 65, and 69. As such, claims 51-60, 63-72, and 74-78 are presented for the Examiner's consideration in light of the following remarks.

### **B. Proposed Claim Amendments**

By this response Applicant has amended claims 51, 65, and 69 to further clarify that the recited steps are performed by one or more apparatus disposed within the enclosed space. The amendments to the claims are supported at least at page 6, lines 7-14 and 27-29 of the specification. In view of the foregoing, Applicant submits that the amendments to the claims do not introduce new matter and entry thereof is respectfully requested.

### **C. Rejection of claims based on 35 USC § 102**

Paragraphs 2 and 3 of the Office Action reject claims 51-55, 57-59, 63, and 66 under 35 U.S.C. §102(b) as being anticipated by PCT Application No. WO 00/74734 to *Watling* ("Watling"). Of the rejected claims, claim 51 is the lone independent claim. Applicant submits that *Watling* does not anticipate claims 51-55, 57-59, 63, and 66 because *Watling* does not include each and every claim limitation recited in the rejected claims.

As shown in Figure 1, *Watling* discloses a sterilizing apparatus used to sterilize a sealed enclosure 1. The apparatus includes, among other things, a heater 7 and an evaporation chamber 10

disposed in a preparation region (also called the “means of processing” or “processing means”) located outside of sealed enclosure 1.

*Watling* teaches that “[t]he sealed enclosure is connected to a means of processing by two pipes through which air or a mixture of air and gases, where the gases are hydrogen peroxide and water vapour, may circulate.” p. 2, lines 28-30. It is within this “means of processing” that the heater 7 and evaporation chamber 10 are located. During operation, as the gas circulates, the gas is heated by heater 7 and the decontaminant gas (typically hydrogen peroxide) and water vapor mixture are dispensed into the gas in the evaporation chamber 10. See, e.g., Abstract. After the airstream has been heated and had additional hydrogen peroxide gas added to it in the means of processing, “the enriched air/gas mixture is then passed through the connection [i.e., one of the pipes] from the processing means to the sealed chamber.” p. 3, lines 18-20; see also p. 2, line 35 to p. 3, line 18; p. 6, lines 1-4. The gas circulates through the sealed enclosure 1 and back to the processing means via the other pipe.

Applicant has herein amended claim 51 to recite “the steps of creating a recirculating heated airstream and progressively introducing hydrogen peroxide/water vapour into the recirculating heated airstream being performed by an apparatus that is disposed within the enclosed space.” In contrast, as noted above and shown in Figure 1, the portions of *Watling* that heat the airstream (heater 7) and introduce the decontaminant gas into the airstream (evaporation chamber 10) are clearly not disposed within the sealed enclosure 1. Thus, the airstream only passes through the sealed chamber after it has been processed; none of the processing steps are performed within the sealed chamber. The Office Action even concedes that “*Watling* does not appear to disclose that the device is ... located inside the enclosed space.” Office Action, p. 8, lines 10-12.

In view of the foregoing, *Watling* does not disclose or suggest a method of decontaminating an enclosed space including “creating a recirculating heated airstream … and progressively introducing hydrogen peroxide/water vapour into the recirculating heated airstream,” in which the steps are “**performed by an apparatus that is disposed within the enclosed space**,” as recited in amended claim 51. Accordingly, Applicant respectfully requests that the anticipation rejection of claim 51 be withdrawn.

Claims 52-55, 57-59, 63, and 66 depend from claim 51 and thus incorporate the limitations thereof. As such, Applicant respectfully submits that claims 52-55, 57-59, 63, and 66 are distinguished over *Watling* for at least the same reasons as discussed above regarding claim 51. Accordingly, Applicant respectfully requests that the anticipation rejection of claims 51-55, 57-59, 63, and 66 also be withdrawn.

D. Rejections of claims based on 35 USC § 103

Paragraphs 4-7 of the Office Action reject claims 56, 60, 64, 67, and 68 under 35 U.S.C. §103(a) as being unpatentable over *Watling* in view of various other references. Specifically, claim 56 is rejected in view of U.S. Patent No. 6,589,479 to Dufresne et al. (“*Dufresne*”); claim 60 is rejected in view of U.K. Patent Application No. GB 2 360 454 A to Martin et al. (“*Martin*”); and claims 64, 67, and 68 are rejected in view of U.S. Patent No. 5,173,258 to Childers (“*Childers*”). *Dufresne* is merely cited for allegedly disclosing using biological indicators to determine when the predetermined concentration of hydrogen peroxide/water vapour in the atmosphere has been reached. *Martin* is merely cited for allegedly disclosing using a recited percentage of hydrogen peroxide solution. *Childers* is merely cited for allegedly disclosing using a heating/ventilation air conditioning system to remove the hydrogen peroxide and to dehumidify the atmosphere within the enclosure.

Applicant respectfully traverses these rejections and submits that a *prima facie* case of obviousness has not been established because the allegedly obvious combinations would not teach or suggest each and every claim limitation recited in the rejected claims.

Claims 56, 60, 64, 67, and 68 depend from claim 51, which, as noted previously, has been amended herein. By virtue of their dependence from independent claim 51, dependent claims 56, 60, 64, 67, and 68 each require “the steps of creating a recirculating heated airstream and progressively introducing hydrogen peroxide/water vapour into the recirculating heated airstream being performed by an apparatus that is disposed within the enclosed space.” As discussed above with regard to the anticipation rejection of claim 51 however, *Watling* does not teach or suggest this limitation in combination with the other limitations of the rejected claims. As such, even if, *arguendo*, the *Watling* method was modified by *Dufresne, Martin*, or *Childers* in the allegedly obvious manners set forth in the Office Action, the resulting combinations fail to include all the limitations of the rejected claims.

In light of the foregoing, Applicant respectfully submits that a *prima facie* case of obviousness has not been established with respect to claims 56, 60, 64, 67, and 68, at least because the Office Action has not established that the references, when combined, teach or suggest all the limitations of claims 56, 60, 64, 67, and 68. Applicant thus respectfully requests that the rejections of claims 56, 60, 64, 67, and 68 be withdrawn.

Paragraph 8 of the Office Action rejects claims 65, 69-72, and 74-78 under 35 U.S.C. §103(a) as being unpatentable over *Watling* in view of U.S. Patent No. 6,630,105 to O’Neill et al. (“*O’Neill*”). Applicant respectfully traverses this rejection and submits that a *prima facie* case of obviousness has not been established because the Office Action has failed to establish a sufficient suggestion or motivation to combine the cited art. Specifically, Applicant respectfully submits that the cited references teach away from the purportedly obvious combination.

As noted above, *Watling* discloses a sterilizing apparatus that sterilizes a sealed enclosure by adding a hydrogen peroxide/water vapor combination to an airstream outside of the sealed enclosure, then passing the enriched mixture through the sealed enclosure. As the mixture passes through the enclosure, the hydrogen peroxide and water vapor levels within the mixture are controlled “so that condensation may occur … through the area to be sterilized or decontaminated,” thereby sterilizing the enclosure. p. 1, lines 29-31; see also p. 2, lines 7-13 and p. 4, lines 22-27. *Watling* further discloses that this sterilizing by condensation of the decontaminant is a main object of the *Watling* invention, and solves various insufficiencies in sterilizers that are designed to avoid condensation of the decontaminant. See p. 1, lines 9-31.

In direct contrast to the teachings of *Watling*, *O'Neill* discloses a “method and apparatus for the gas phase decontamination of chemical and biological agents.” *O'Neill* Abstract, *emphasis added*. *O'Neill* discloses that “the object of the … [*O'Neill*] invention is to avoid the operational and logistic limitations of aqueous systems with a gas phase decon procedure …” Because the method of decontamination in *O'Neill* does not include condensation of the decontaminant, *O'Neill* discloses that its apparatus “is ideally suited for decontamination of sensitive equipment … which would be critically damaged or rendered inoperative when decontaminated with aqueous or solvent based systems.” Col. 1, lines 49-55; see also col. 5, lines 7-9. Thus, *O'Neill* teaches against condensing the decontaminant.

It is well established that “[i]t is improper to combine references where the references teach away from their combination.” MPEP § 2145(X)(D)(2). Accordingly, because condensation of the decontaminant is an express object of the *Watling* decontamination method and because *O'Neill* expressly teaches away from decontamination by condensation of a decontaminant, Applicant respectfully submits that it would not be obvious to combine the teachings of the *Watling* and *O'Neill*

patents as set forth in the Office Action and thus the Office Action has failed to establish a *prima facie* case of obviousness with respect to claims 65, 69-72, and 74-78. Applicant thus respectfully requests that the rejection of claims 65, 69-72, and 74-78 be withdrawn.

No other objections or rejections are set forth in the Office Action.

E. Conclusion

Applicant notes that this response does not discuss every reason why the claims of the present application are distinguished over the cited art. Most notably, applicant submits that many if not all of the dependent claims are independently distinguishable over the cited art. Applicant has merely submitted those arguments which it considers sufficient to clearly distinguish the claims over the cited art.

In view of the foregoing, applicant respectfully requests the Examiner's reconsideration and allowance of claims 51-60, 63-72, and 74-78 as presented herein.

In the event there remains any impediment to allowance of the claims which could be clarified in a telephonic interview, the Examiner is respectfully requested to initiate such an interview with the undersigned.

Dated this 11<sup>th</sup> day of October 2007.

Respectfully submitted,

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